

[APPARATUS AND METHOD FOR DETECTING AND COMPENSATING CURRENT OFFSET]

Abstract

A quadrature modulator and a transmitter capable of detecting and reducing a current offset are provided. The quadrature modulator comprises a base band transconductance for converting a voltage signal into a current signal and a switching pair for modulating the current signal. A current sink is further coupled after the base band transconductance for detecting a current offset of the current signal. When the current sink is enabled to detect the current offset of the transmitter within a predetermined time interval, the switching pair is disabled, and after the predetermined time interval lapses, the current sink is disabled and the switching pair is enabled.